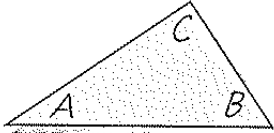
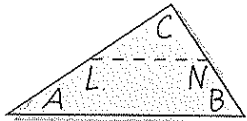
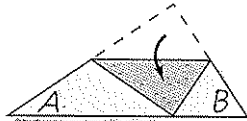
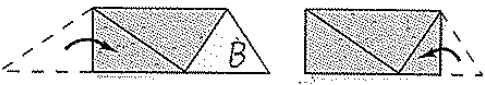


Work Together....

In each group,

- Using a ruler (and protractor) draw scalene triangles – one right triangle, one acute triangle, and one obtuse triangle. Cut them out.

Each member:

2. Label the vertices of your triangle A, B, and C.	
3. Fold A onto C to find the midpoint of \overline{AC} . Do the same for \overline{BC} . Label the midpoints L and N, and then draw \overline{LN} .	
4. Fold your triangle on \overline{LN} . \overline{LN} is called the midsegment of the triangle.	
5. Fold A to C and B to C.	

As a group, explore your triangles and answer these questions.

- A) See what you can find out about the quadrilateral formed by the folded triangle. What type of quadrilateral does it form?

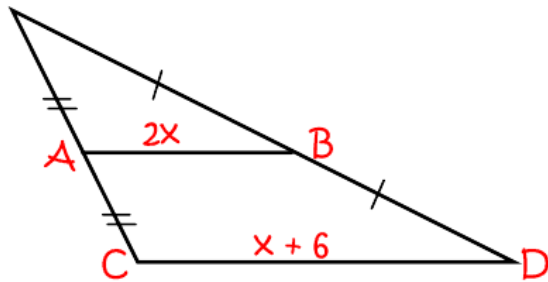
B) What does this tell you about \overline{LN} and \overline{AB} ?

- How does \overline{LN} compare to \overline{AB} ? Explain.

Group activity – 3 people per group

Materials needed: paper, pencil, ruler, and protractor.

3. Make a conjecture (propose a theorem) about how the segment joining the midpoints of two sides of a triangle (the midsegment) is related to the third side of the triangle. (Look for two relationships.)
4. Each group member, make an isosceles triangle and test your conjecture.
Does your conjecture seem to be true with the isosceles triangles?
5. Tape your triangles here.



Use what you just found out and complete the following information.

1. \overline{AB} _____ \overline{CD}
2. $x =$ _____
3. $AB =$ _____
4. $CD =$ _____

\overline{DE} is the midsegment of $\triangle ABC$.

\overline{FG} is the midsegment of $\triangle ADE$.

\overline{HI} is the midsegment of $\triangle AFG$.

If $BC = 12$, find DE , FG , and HI .

5. $DE =$ _____

6. $FG =$ _____

7. $HI =$ _____

